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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,089	07/24/2001	Carl Binding	CH919990053	5546

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EXAMINER

PHAM, KHANH B

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 01/14/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/912,089

Applicant(s)

BINDING ET AL.

Examiner

Khanh B. Pham

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☒ Claim(s) 11-14 and 26-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 10-14, 25-26-29 are rejected under 35 U.S.C. 112**, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 10, 25, the phrase "such as" at lines 2, 4 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. The phrase "(i.e., columns)" at line 6 renders the claim indefinite because it is unclear whether the limitations enclosed within the parenthesis are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 11, 26, the phrase "such as" at line 2 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claims 14, 29, the phrases "(EXPLICIT or IMPLICIT)" and "(UNIVERSAL, APPLICATION, CONTEXT, PRIVATE)" at lines 3-4 render the claim

indefinite because it is unclear whether the limitations enclosed within the parenthesis are part of the claimed invention. See MPEP § 2173.05(d).

Claims 12-13 depend upon claim 11, **claims 27-28** depend upon claim 26, and therefore also rejected.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-6, 9-10, 15-21, 24-25 are rejected under 35 U.S.C. 102(b)** as being anticipated by Turau ("Making Legacy Data Accessible for XML application", 1999), hereinafter "**Turau**".

As per claims 1, 15, 16, Turau teaches a method and computer readable medium for "externalizing legacy data from a legacy database on a data resource into a format compliant with a certain structured output format in which the format is specified by an associated, automatically generated meta-description (DTD), thus enabling access and processing of legacy data by applications that read the structured output format" (See Abstract, page 1), the method comprising:

- "an exploration/adaptation step for exploration of the data resource" at page 3, 2nd paragraph and Fig. 1. (Turau teaches the step of exploring data from each row and field of the relational data table);

- “a production step for generation of the structured output format data out of the legacy data on the data resource” at page 3, 2nd paragraph and Fig. 1. (Turau teaches the step of generating DTD and XML files from the relational table.)

As per claims 2, 17 Turau teaches a method and computer readable medium for transforming legacy data from a legacy database on a data resource into Extensible Markup Language (“XML”) format (See Abstract, page 1), the method comprising the steps of:

- “taking data modelled in a manner selected from a group consisting of relational data and data formatted according to an Abstract Syntax Notation (“ASN.1”) data model and transforming such data into an XML-compliant data format” at page 1, Fig. 1 (Turau teaches a method for transforming relational data into an XML document.)
- “wherein an Extensible Markup Language meta-data description, contained in an XML Document Type Definition (“DTD”), is automatically generated” at page 6, Fig. 2.

As per claims 3, 18, Turau teaches the method and computer readable medium for of claims 2, 17, wherein “further are added an exploration/adaptation step for exploration of the data resource” and “a production step for generation of the Extensible Markup Language data out of the legacy data on the data resource” at page 3, 2nd paragraph and Fig. 1.

As per claims 4, 19, Turau teaches a method and computer readable medium for mapping data formatted according to either of a group consisting of a relational database model and an Abstract Syntax Notation ("ASN.1") data model into an Extensible Markup Language ("XML") compliant data format (See Abstract, page 1), the method including:

- "an exploration/adaptation step for exploration of legacy data in a legacy database on a data resource" at page 3, 2nd paragraph;
- "and a production step for generation of XML data out of the legacy data, wherein the method performs data format mapping between the legacy database and an XML-compliant representation of that data" at page 3, 2nd paragraph and Fig. 1.

As per claims 5, 20, Turau teaches the method and computer readable medium of claims 4, 19, wherein "in the exploration step, standardized database functions are used to retrieve information on a database's data scheme" at page 5, 2nd paragraph. (Tauru uses SQL functions to retrieve information form relational database.)

As per claims 6, 21, Turau teaches the method and computer readable medium of claims 4, 19, wherein "the data format mapping is automated between legacy databases and an XML-compliant representation of that data" at page 3, 2nd paragraph and Fig. 1.

As per claims 8, 23, Turau teaches the method and computer readable medium of claims 2, 17, wherein “an XML Document Type Definition (“DTD”) conversion between either of the group and an XML-compliant format is made” at page 7, 1st paragraph.

As per claims 9, 24, Turau teaches a method and medium that automates the data format mapping between data in a legacy database on a data resource formatted according to one member of a group selected from relational databases modeled according to a relational data model and Extensible Markup Language (“XML”)-compliant representations of that data (See Abstract, page 1), the method comprises:

- “an exploration/adaptation step for exploration of the data resource”, at page 3, 2nd paragraph; and
- “a mapping step for generation of XML data out of the legacy data” at page 3, 2nd paragraph and Fig. 1.

As per claims 10, 25, Turau teaches the method and medium of claims 9, 24, wherein “the mapping step includes the following substeps:

- “(a) mapping relations, such as tables, within the relational data model onto XML elements including a “table” and a “row” element” at page 3, 2nd paragraph and Fig. 1;
- “(b) mapping tuples, such as rows, within a relation onto XML elements which are nested within the XML “table” element” at page 3, 2nd paragraph and Fig. 1; and

- “(c) mapping attributes (i.e., columns) of tuples onto XML elements which are nested within the XML "row" element” at page 3, 2nd paragraph and Fig. 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. **Claims 7 and 22 are rejected under 35 U.S.C. 103(a)** as being unpatentable over **Turau** as applied to claims 1-6, 8-10, 15-21, 23-25 above, and in view of **Sue** (“XER – A Bridge between ASN.1 and XML”), hereinafter “**Sue**”.

As per claims 7, 22, Turau teaches the method and computer readable medium of claims 6, 21 as discuss above. Turau teaches the mapping between legacy database and XML but does not teach: "the mapping submethod covers all ASN.1 constructs, both primitive and composite". However, Sue teach a similar method for mapping between ASN and XML wherein "the mapping covers all ASN.1 constructs, both primitive and composite" at pages 3-4 (Sue teaches the mapping rule for ASN.1 to XML, wherein the primitive comprises: "Boolean, bit string, integer, octet string ..." and the composite construct comprises: "Sequence, Choice, External, Any...") Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Turau and Sue's teachings so that XML data format could be generated from both relational database and ASN.1 data formats in order to "provide a means of interfacing legacy ASN.1 based systems to the Internet and XML system" (Sue, page 1, 4th paragraph.)

Allowable Subject Matter

7. **Claims 11-14 and 26-29 are objected** to as being dependent upon rejected base claims, but would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: Prior art of record do not teach combination of claimed elements including the combination of steps from (a) to (k), with specific detail for each step as claimed. Turau teaches a method for mapping relational database to XML but do not teach mapping from ASN.1 to XML. Sue teaches a method for mapping ASN.1 to XML, but does not describes the detail steps from (a) to (k) as claimed. Thus, prior art of record neither renders obvious nor anticipates the combination of claimed elements in light of the specification.

Conclusion

9. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is **(703) 305-9601** for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (703) 308-7299. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)746-7240.

Khanh B. Pham
Examiner
Art Unit 2177

KBP
January 7, 2004


JEAN R. HOMERE
PRIMARY EXAMINER